



ENVIRONMENTAL JUSTICE EN BANC



July 6, 2017
San Francisco, CA





Emergency Evacuation

Safety is our number one priority:

Please listen to the emergency evacuation instructions for this location.



Evacuation Assembly Location

CPUC

War Memorial Herbst Theater

Evacuation Assembly Location

War Memorial Opera House

SF Superior Court

City Hall

DES CALIFORNIA DEPARTMENT OF GENERAL SERVICES

California Public Utilities Commission





Environmental Justice Objectives

1. Improve air quality in disadvantaged communities by displacing fossil fuels in our energy and transportation systems
2. Invest in clean energy resources and electric transportation
3. Enhance enforcement to ensure safety and consumer protection
4. Outreach and public participation opportunities





Environmental Sustainability

CPUC Strategic Directive #9

The CPUC implements state and federal law and develops policies that are consistent with California's environmental sustainability laws and goals.

Within its jurisdictional authority, the CPUC will:

1. Consider the impact of CPUC decisions and policies on California's natural resources and communities;
- 2. Consider the environmental and public health impacts of CPUC decisions and policies on California's disadvantaged communities.**





Disadvantaged Communities Energy Programs and Policies at the CPUC



Energy Division Staff
Disadvantaged Communities/Environmental Justice
En Banc

July 6, 2017





CPUC Energy Oversight

- CPUC Mission:
 - To protect consumers and ensure safe, reliable, utility service at just and reasonable rates
 - Committed to environmental enhancement and a healthy economy
- The CPUC regulates the investor-owned utilities that collectively serve over two-thirds of total electricity demand and over three-quarters of natural gas demand throughout California.
- The CPUC has broad reach and is working to ensure the State's vulnerable and marginalized populations have access to electric and gas service and clean energy technologies.





CPUC Programs Targeting Low Income or DACs

- CPUC has a number of energy programs targeting low income households and disadvantaged communities

Low Income Assistance Programs	
California Alternate Rates for Energy (CARE)	Provides 30-35% discount on electric bill and 20% on gas bill for income qualified customers
Family Electric Rate Assistance Program (FERA)	Provides lower rates for electricity usage
Energy Savings Assistance (ESA) Program	Provides no-cost weatherization measures to qualified households
Single-family Affordable Solar Homes (SASH) Program	Provides financial incentives for installing solar on low-income households
Multifamily Affordable Solar Homes (MASH) Program	Provides financial incentives for installing solar on multifamily affordable housing
California Solar Initiative Solar Thermal Program	Provides financial incentives for installing solar water heating in low income single and multifamily households





CalEnviroScreen

- CalEnviroScreen (CES) was created as a means to prioritize the distribution of cap and trade auction funds
- CES is a broad tool used for defining community burdens:
 - 20 Indicators or factors contribute to “scores”
 - Range of pollutant, health risk, socio economic factors
 - Statewide Ranking of ~8,000 Census Tracts





CalEnviroScreen Indicators

Pollution Burden

Exposures

- Ozone Concentrations
- PM2.5 Concentrations
- Diesel PM Emissions
- Drinking Water Contaminants
- Pesticide Use
- Toxic Releases from Facilities
- Traffic Density

Environmental Effects

- Groundwater Threats
- Hazardous Wastes
- Impaired Water Bodies
- Solid Waste Sites and Facilities

Population Characteristics

Sensitive Populations

- Asthma
- Emergency Department Visits
- Cardiovascular Disease (ER visits)
- Low Birth Weight Infants

Socioeconomic Factors

- Educational Attainment
- Housing Burdened Low Income HH
- Linguistic Isolation
- Poverty
- Unemployment





SB 350: The Clean Energy and Pollution Reductions Act of 2015

- Goal: Reduce GHG emissions from 1990 levels 40% by 2030, and reduce other air pollutants through:
 - Encouraging resource optimization via an Integrated Resource Planning (IRP) process
 - Increasing Renewable Requirements from 33% by 2020 to 50% by 2030
 - Doubling of Energy Efficiency savings by 2030
 - Encouraging transportation electrification to reduce economy wide GHGs
- SB 350 places an early priority on disadvantaged communities





SB 350 Consideration of Disadvantaged Communities

- Requirements
 - Consider impacts on Disadvantaged Communities in CPUC decision making processes
 - Prioritize air quality improvements
 - Target economic benefits (e.g. energy savings, jobs)
 - Include voices from Disadvantaged Communities in decision making





SB 350 Implementation

Statute	Proceeding/ Program	Goals for DACs	Status
PUC 399.13(a)(7)	Procuring renewable resources: RPS	Give preference to renewables procurement that provide economic/environmental benefits in communities either afflicted by low income/high unemployment or high emissions.	CPUC is considering how to include this requirement within the RPS program.
PUC 400(a)	Distributed Generation (e.g. CSI, SGIP, MAHSR/NEM)	Take into account economic and environmental benefits of DG.	CPUC is reviewing comments on how to increase DG in disadvantaged communities.
PUC 400(d)	R&D Programs	Make recommendations to advance clean energy and pollution reduction objectives and provide benefits.	CEC designated 25% of funds in current EPIC Investment Plan. CEC included projects in Natural Gas R&D Program.
PUC 400(g)	Create Advisory Group with CEC	Include DACs in decision making on Clean Energy and Pollution Reduction programs.	Staff proposal with recommendations on the structure of the Advisory Group will be issued in July.





SB 350 Implementation

	Proceeding/ Program	Goals for DACs	Status
PUC 454.5 (b)(9)(D)(i)	Gas-fired generators in DACs	Give preference to procurement of resources that aren't gas-fired generators in communities with high pollution burdens.	IOUs must make a showing that they complied with this statute when requesting approval for gas-fired generation.
PUC 454.52 (a)(1)	Integrated Resource Plan (IRP)	Long term energy resource planning must minimize GHG and air pollutants with early priority in DAC.	Energy Division staff issued a staff proposal proposing guidelines for consideration of disadvantaged communities.





SB 350 Implementation

	Proceeding/ Program	Goals for DACs	Status
PUC 454.55(a)(2) and 454.56(d)	Energy Efficiency	Maximize gas and electric savings in disadvantaged communities Report on progress due in 2019.	CPUC is reviewing business plan applications for maximizing savings in disadvantaged communities.
PUC 740.12(b)	Transportation Electrification (TE)	IOUs must file applications for programs and investments to accelerate transportation electrification.	Large IOUs submitted plans proposing \$1B in investments in TE. Small IOUs submitted plans in June.





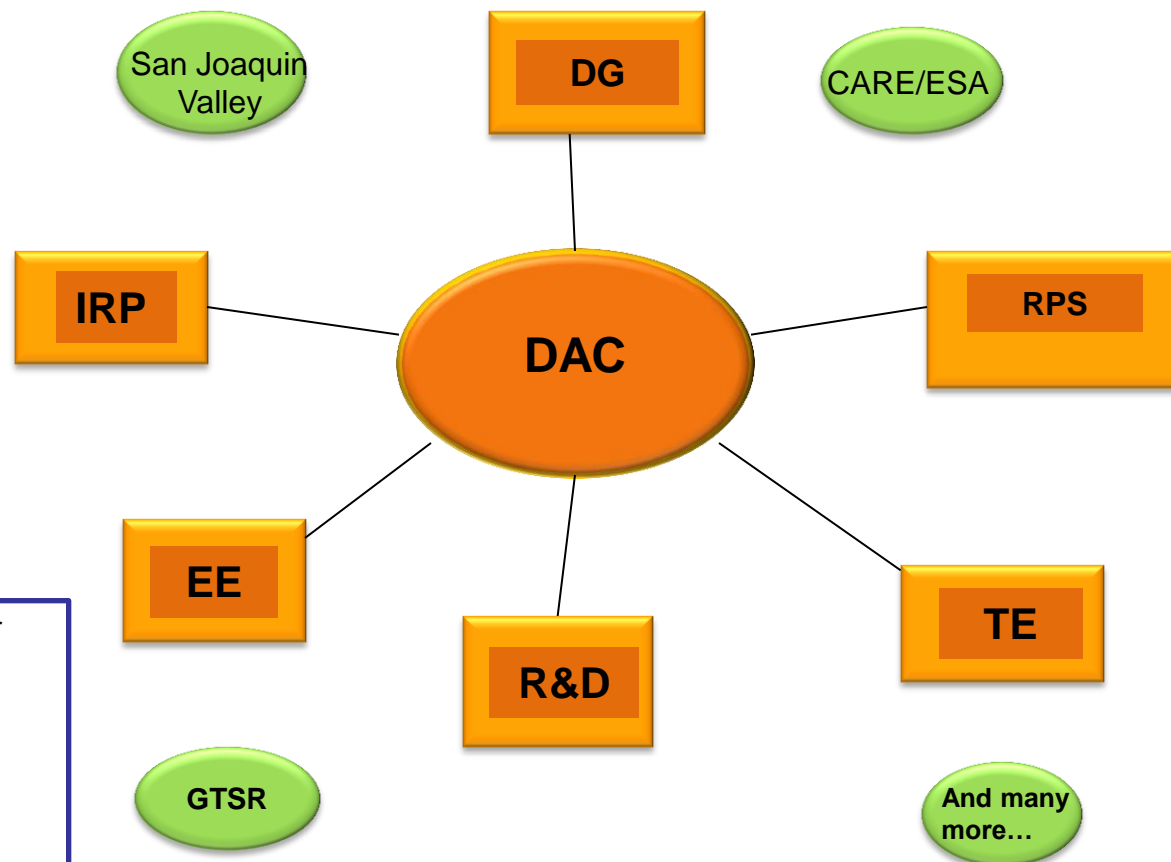
Other Statutes Targeting Disadvantaged Communities

Statute	Proceeding/ Program	Goals impacting DACs	Status
PUC 783.5	San Joaquin Valley: affordable energy options to replace heating fuels	Disadvantaged Community, defined as: 25% of HH with electric service have CARE; community >100; not > 7 miles from IOU gas line; in 8 specified counties.	Stakeholder meeting will be held this month. ORA proposed a data gather framework – CPUC currently reviewing comments.
PUC 2833(b)	Green Tariff Shared Renewables (GTSR)	100 MW set aside for disadvantaged communities.	A solicitation for new projects is currently underway.





Disadvantaged Communities Proceedings



- Distributed **G**eneration (customer solar)
- Renewables **P**rocurement
- Transportation **E**lectrification
- Research and **D**evelopment
- Energy **E**fficiency
- Integrated **R**esources **P**lanning
- Energy **S**avings **A**ssistance
- **G**reen **T**ariff **S**hared **R**enewables
- San Joaquin/ Affordable Energy





Coordination Across Proceedings

- Key considerations moving forward
 - Establishing a DAC implementation framework that relies on CPUC core competencies and statutory responsibilities
 - Addressing the unique goals of each proceeding with a consistent approach to DACs
 - Aligning different definitions for DACs
 - Establishing consistent metrics to track DAC objectives
 - Controlling program costs so that rates remain affordable





Disadvantaged Communities Advisory Group

- SB 350 requires the CPUC and CEC to establish an advisory group to advise the commissions on the effectiveness of proposed pollution reduction/clean energy programs
- CPUC and CEC developing a staff proposal on the structure of the Disadvantaged Communities Advisory Group
 - Staff will consider comments from stakeholders and develop a charter
 - Charter will be adopted by both commissions (via resolution at the CPUC)
 - CPUC/CEC will work on establishing the board





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COMMISSIONER REPORTS





Commissioner Guzman Aceves





Case Study: Rooftop/Community Solar

- Single Family
 - SASH
 - NEM
- Multifamily
 - MASH
 - Multifamily Affordable Solar Roofs (check/fix name) (AB693)
 - Virtual net energy metering (VNM)
- Renters and those with infeasible rooftops
 - Green Tariff Shared Renewables
 - Other options under consideration, such as Community VNM
- All: Customer protection measures

One size does not fit all!





Case Study: San Joaquin Valley

- ~29,000 households in ~170 communities lack access to natural gas
 - Residents depend on propane, wood, or electricity for basic needs
 - Each location has a different set of circumstances, with different priorities, community resources, and ways of engaging
- The Commission is exploring alternatives to increase access to affordable energy in these communities (AB 2672)
 - To be successful, solutions must be locally-driven





Case Study: San Joaquin Valley

- Bringing the Commission to the Valley
 - 6 on-site community workshops so far planned/complete
 - Bring energy solution providers to communities
 - PHC in Fresno
- Recruiting new, local parties and community leaders
 - Community members
 - Local non-profits
 - Local government partners
- Collaboration amongst “new” stakeholders and “conventional” parties to develop joint proposals that meet both state and local goals
 - Economic feasibility and affordability
 - Environmental goals
 - Safety and reliability





Case Study: Demand Response

EJ Goal: Target demand response in transmission constrained local capacity areas

- Contingency planning requires a minimum amount of resources to be located within transmission-constrained areas (e.g., San Diego or West LA Basin)
 - Utility-Scale renewables are located farther from load pockets
 - Local planning has driven approvals to build new gas-fired resources in recent years (replacing older Once Through Cooling resources)
- Ensure supply-side demand response resources meet local resource adequacy needs
 - Directly reduces need for new resources
 - Displace contracts with the most polluting gas plants





Case Study: Demand Response

EJ Value: LBNL Potential Study shows high opportunity for DR in local capacity areas relative to current penetration

IOU Territory	Local Capacity Area	Estimated MW 2020 (Ex Ante)*	Potential MW 2020 (LBNL Study **)
SCE	LA Basin	658	2,092
	Ventura/ Big Creek	205	400
PG&E	Greater Bay Area	85	1,106
	Greater Fresno	35	700
SDG&E	Full Territory	117	260

* Ex-ante average values compiled by ED Staff from the Load Impact Protocols and reflect aggregate impact MWs under IOU system 1-in-2 weather conditions, during August monthly peak event. Ex-ante information also includes confidential filings.

26* Potential study MWs based on the Medium DR market transformation and technology scenario. The LBNL Potential Study results are available at <http://www.cpuc.ca.gov/General.aspx?id=10622>





Case Study: Demand Response

Implementation:

- Existing IOU Programs
 - Seeking party input on how to increase DR in local capacity areas or disadvantaged communities.
 - Questions Ruling issued June 30, 2017 (in A.17-01-012 et. Al); responses due in briefs (July 24, 2017)
- Demand Response Auction Mechanism (DRAM)
 - Can DRAM contracts target customers in local capacity areas, especially disadvantaged communities in LCAs?
 - R.13-09-011 is considering authorizing supplemental DRAM in 2018 for 2019 deliveries





Commissioner Peterman





Current and Proposed EV Charging Infrastructure Programs

- NRG Settlement Agreement – EVgo Deployment
- Light-duty EV charging infrastructure programs
 - SCE Charge Ready
 - SDG&E Power Your Drive
 - PG&E EV Charge Network
- SB 350 Transportation Electrification Plans (Proposed)





Current Programs – Overall Size

Program	\$ Total	No. Charging Stations
NRG / EVgo	\$102.5M	200 “Freedom Plazas” and 10,000 “make-ready” charging stations
SCE Charge Ready	\$22M	1,500 charging stations
SDG&E Power Your Drive	\$45M	3,500 charging stations
PG&E EV Charge Network	\$130M	7,500 charging stations





DAC Definitions

Program	DAC Definition
NRG / EVgo	Locations in Public Use Microdata Areas (PUMA) in which the median incomes are in the lowest one-third among all of the PUMAs in a given region
SCE Charge Ready	Top quartile of census tracts per the CalEnviroScreen scores on either a state-wide or a utility-wide basis, whichever is broader
SDG&E Power Your Drive	Top quartile of census tracts per CalEnviroScreen, calculated on either a state-wide or a service territory basis, whichever is broader
PG&E EV Charge Network	Top quartile of census tracts defined through CalEnviroScreen, and which also meet the spirit of the definition





NRG / EVgo Deployment

DAC Requirements

- 20% of fast charging “Freedom Stations” must be in low-income areas
- Ensure make-ready arrays are available to Californians of all income levels
- Required to spend \$4 million on the “EV Opportunity Program” projects

Implementation to date

- 21% of all operational sites (35 of the 166 Freedom Stations) had been located in low-income PUMAs, as of March 2017
- “Green Raiteros Project” – charging for ridesharing in Central Valley
- “Electric Access Charging Hub” – car sharing and shuttle charging in urban low-income communities





IOU LDV Infrastructure Deployment

DAC Requirements	Implementation to date
SCE - 10% of infrastructure in DACs	<ul style="list-style-type: none"> • 46% of committed applications participating in Charge Ready are located in DACs • 34 sites (439 charge ports) have been approved and confirmed for DAC sites • 6 out of 7 installed sites (93 charging ports), are in DACs (as of June 2017)
SDG&E - 10% of infrastructure in DACs	<ul style="list-style-type: none"> • 49% of the program's 51 contracted site hosts are located in DACs • SDG&E has not yet launched the full program, and expects to begin construction on the first three sites at the end of June
PG&E - 15% of infrastructure in DACs	<ul style="list-style-type: none"> • 19% of customers that expressed interest in the EV Charge Network program have sites located in DACs, which is a total of 52 sites (as of June 2017) • Full program / construction should launch in December 2017





Proposed Programs – SB 350

- In total, **the utilities have requested approximately \$1 billion** in funding to implement these proposals
- Estimated 95,000 charging ports across applications
- May use the CalEnviroScreen definition of DACs
- Example treatment of DACs:
 - Air quality improvements by targeting med/heavy-duty vehicles
 - Port and airport electrification projects that are in or adjacent to DACs
 - Some target outreach and rebate structures for sites in DACs





Commissioner Rechtschaffen





Existing Policies and Programs

Energy Savings Assistance Program (ESA)

- Invests in weatherproofing, electric and gas appliance repair and replacement measures for low income customers
- Annual budgets of approx \$450 million for years 2017-2020

Renewables Portfolio Standard (RPS) Statute (399.13(a)(7))

- Utilities must give preference to renewable projects that provide environmental and economic benefits to communities with poverty or high unemployment, or that suffer from high emission levels of toxic air contaminants, criteria air pollutants, and greenhouse gases





Proposed Policies and Programs

Self-Generation Incentive Program

- Provides incentives towards customers' investment in clean DG
- Proposal to allocate 20% of budget for projects located in disadvantaged communities (defined as top 25% most affected census tracts based on CalEnviroScreen)

Renewable Auction Mechanism (RAM)

- Streamlined procurement process for small scale renewable projects
- Proposal to direct future procurement to locally constrained resource areas. This could help alleviate need for conventional peaker plants in disadvantaged communities





Low Income Oversight Board

- Established in 2001, Public Utilities Code Section 382
- Advisory body to CPUC on low income electric, gas and water issues
- Serves as a liaison for the Commission to low income ratepayers and representatives
- Quarterly public meetings

How can the Disadvantaged Communities Advisory Group best coordinate and avoid overlap with Low Income Oversight Board?





Commissioner Randolph

Integrated Resource Planning





Panel 1: Identification of Environmental Justice Issues

- What are the critical environmental justice issues within the CPUC's jurisdiction?
- How can the CPUC ensure that reduced air emissions and reduced greenhouse gas emissions occur in Disadvantaged Communities?
- What environmental justice issues should be considered throughout CPUC processes, and in what proceedings?





Panel 2: Promoting Clean Energy in Disadvantaged Communities

- How can the CPUC promote renewable energy, energy efficiency, and other clean energy resources in disadvantaged communities?
- What new interagency collaborations would facilitate investment in clean energy resources in disadvantaged communities?
- How can the CPUC best reach out and partner with representatives of disadvantaged communities to promote clean energy resources?





Public Comment

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Thank you!

